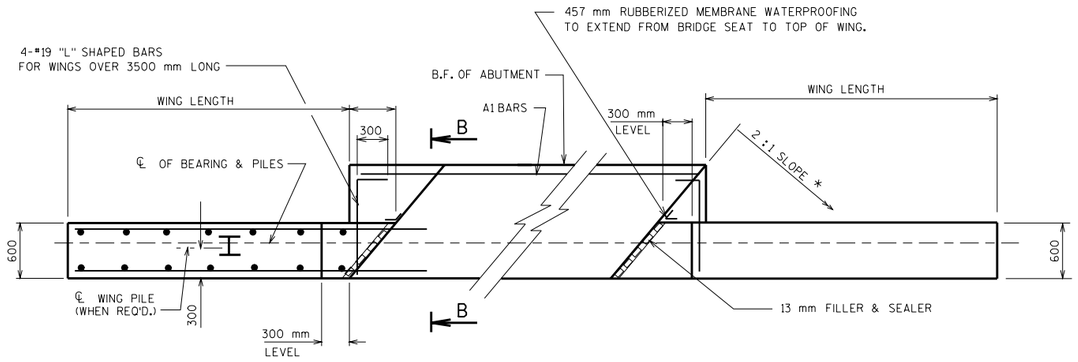


PLAN FOR TYPE A1 ABUTMENT

DESIGNER NOTES

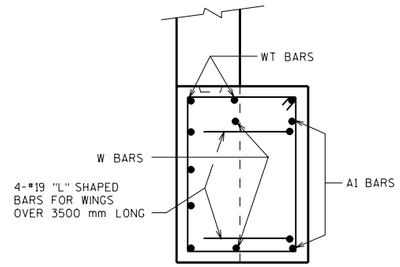
THIS TYPE OF WING MAY BE USED IN LIEU OF WINGS PARALLEL TO ROADWAY IF APPROVED BY THE BUREAU OF STRUCTURES DESIGN SECTION. DO NOT USE FOR STREAM CROSSINGS WHEN HIGH WATER ELEVATION IS ABOVE TOP OF BERM ELEVATION.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.

*USE 2 1/2:1 FOR THE UNSTABLE CLAYS WHICH ARE SOMETIMES ENCOUNTERED IN NORTHWEST WISC. (SUPERIOR AREA)

DESIGN LOADS (WINGS)

LIVE LOAD = 300 mm SURCHARGE
LOAD FACTOR = 1.3 (5/3 LL + 5/3 E)
HORIZONTAL EARTH LOAD = 1600 Pa EQUIV. FLUID PRESSURE
fy = 420 MPa
f'c = 24 MPa



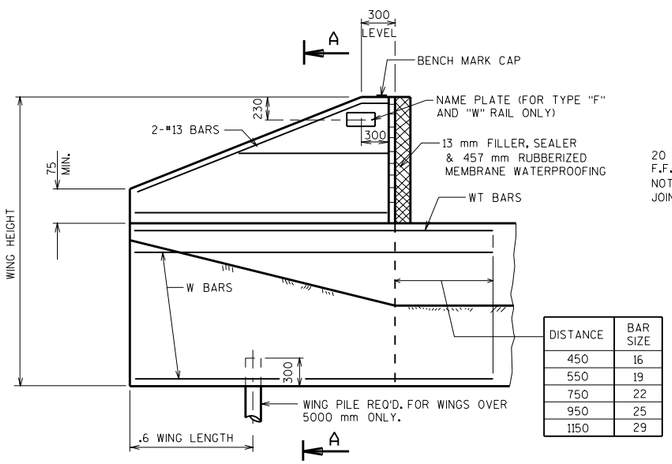
SECTION B-B

SEE STD. 12.1 & 12.2 FOR NOTES & DETAILS

TABLE A

WING LENGTH	WING HEIGHT 2500	3000	3500	4000	BARS
3000	4-#16	4-#16	5-#16	——	W
	2-#16	2-#16	2-#16	——	WT
	4-#19	4-#19	4-#19	——	A1
4000	——	4-#22	5-#22	4-#25	W
	——	2-#22	2-#22	2-#25	WT
	——	4-#19	5-#19	4-#22	A1
5000	——	5-#25	6-#25	5-#29	W
	——	2-#25	2-#25	2-#29	WT
	——	6-#19	4-#25	6-#22	A1
⚠ 6000	——	——	8-#25	8-#29	W
	——	——	2-#25	2-#29	WT
	——	——	6-#25	7-#25	A1

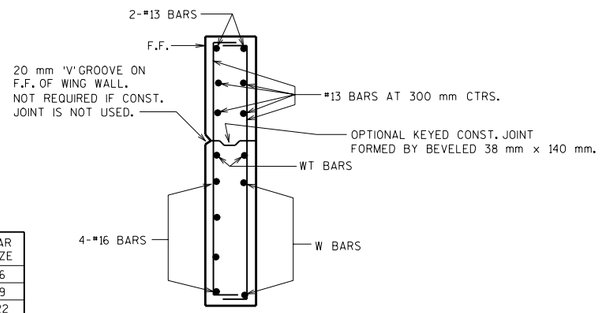
⚠ WING PILE REQUIRED



DISTANCE	BAR SIZE
450	16
550	19
750	22
950	25
1150	29

WING ELEVATION

(A1 ABUTMENT)



SECTION A-A

DETAILS FOR WINGS PARALLEL TO A1 ABUTMENT CENTERLINE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: _____ DATE: 1-02

METRIC STANDARD 12.7